

## THE PERFORMANCE OF DIGITAL PAYMENTS IN YEMEN

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### ABSTRACT

*The paper at hand explores the economic and banking system in the Republic of Yemen. The researcher traces the development of the banking system and financial legislation related to banks and electronic wallets. This paper examines the development of electronic payment platforms in the Republic of Yemen, their contribution to electronic services, the availability of sale points, and their comparison over the years. The paper compares the advantages and disadvantages of digital platforms in the Republic of Yemen to better understand their development and improve the quality of services.*

**KEYWORDS:** *Explores, Platforms, Improve, Compares, Availability, Legislative.*

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### INTRODUCTION

Within the legislative framework for electronic payments, financial institutions in Yemen realized the importance of electronic payments. They sought to issue legal legislation regulating electronic payments from 2006 to 2014 to handle electronic payment services via mobile phone to begin promoting financial inclusion. The digital payment is indirectly under the supervision of the Central Bank of Yemen, and the state has recently allowed small exchange companies to open electronic payment applications, as these companies currently record a stronger activity than banks. Therefore, the Central Bank –Aden- has been alert to the seriousness of the situation and is trying to restore the organization of banking operations through a unified portal for electronic payments. The portal gate needs an infrastructure represented in the database and the program that operates all intermediary users such as financial institutions and banks. They established the linking points between the central bank and the intermediaries at the end of 2021.

By 2021, the total number of users of electronic payment methods in Yemen increased to 802,000. This represents 3% of the total population of Yemen. (Jarmozy, 2021). The idea of financial inclusion is based on six basic elements, which must be present in the integrated system and complement each other. The first element is environment and infrastructure. Infrastructure must be available in the banking system. For example, Internet connection is essential for financial and banking services.

The second element is accessibility, which scholars interpret as the state enacting the legislation to facilitate individuals' access to the bank account and direct access to banking accounts and services. Another essential element is quality. It is related to an ease of use and the system's ability to protect individuals from penetration, theft, and fraud; it also helps them get loans easily. Fourth is usage. Using financial services must be available in all aspects that achieve the efficiency of the banking system and banking work. Fifth come education, which means here the individuals' competence to deal with various financial services for banking work, including electronic applications and ATMs, and knowledge of legal regulations and legislation when beneficiaries request loans from the bank.

The sixth element is the community that integrates with development and progress in work, electronic payment, and copes with life that differs from the past. The financial inclusion policy must ensure individuals' legal and digital protection from fraud and theft. Countries have competed to highlight and take advantage of economic strength in recent years. This justifies the importance of electronic payments, which were adopted by the financial policy in Yemen, i.e., electronic riyal, with various technologies and applications. The policy includes the latest means to provide electronic payment services. And the use of the mobile phone, as an official channel, to conduct banking transactions the money in the electronic wallet is considered a form of electronic money. Its value is equal to the value of the paper currency and is accepted for payments. The basis of electronic money is depositing or transferring between accounts or paying for sellers. So the central bank is the reference for electronic operations. The basic rule of digital deposits is the supervision of central banks, and the second is the delivery of banking services to exclude individuals. Where the proportion of poverty is varied, through urban and rural, and they are the groups that are often deprived of financial services. The Central Bank, in the process of regulating wallets and digital payments, is to promote and protect the rights of users of financial services, while imposing laws, and solving outstanding problems. (AMF, 2013)

## **LITERATURE REVIEW**

**1) Hani Abdullah Muhammad- 2008:** Methods of Investing Money in Islamic Banks and their Economic Importance An applied study on Islamic banks in Yemen. Ph. D. thesis, *Omdurman University*, Sudan. In this thesis, the researcher talked about banks and Islamic banks in particular, then touched upon the most important methods of financing offered by Islamic banks operating in the Republic of Yemen and the researcher recommends the need to take advantage of Islamic banks in financing and lending.

**2) Zina Mansoor Ali Al-Absi, 2017:** Improving Management of Financial Inclusion in Developing Countries, Study for Master of Business Administration (EMBA) degree to the Centre of Business Administration at *Sana'a University*, Sana'a. Zina aims to explain the statement of financial inclusion, in the Arab countries. He found that, the literature of financial needs more programs, to decrease it and improving the statement of financial index.

**3) Dr. Abdel Halim Gharbi 2017:** The role of Islamic banking in financial and banking inclusion in Arab as a model, , Gharbi explained Islamic financial products and their use in Arab financial extent, to analyze the best policies to improve the opportunities for groups deprived of access to services to obtain them. He described the researcher's procedures to achieve Islamic financing that goes beyond financial inclusion to social inclusion.

**4) Heba Abdel Moneim and Karim Zaidi, 2020:** Banking Competition and Financial Inclusion in the Arab Countries, Arab Monetary Fund publications. The study dealt with several aspects that examine competition and its impact on financial inclusion, such as the diversity of the banking sector structure, and the extent of the development of the banking sector, which is the entity that is its research on financial inclusion under the terms of infrastructure and its impact on financial inclusion, including the availability of basic requirements supporting financial inclusion.

**5) Abdul Rahman 2021:** The Role of the Electronic Wallet in Promoting Financial Inclusion, International experiences, Al-Muntada Journal for Economic Studies and Research. The paper dealt with how electronic wallets contribute to enhancing financial inclusion in the Covid crisis and evaluated the role of technology in promoting financial inclusion, and the researcher followed the approach analytical descriptive by presenting the literature and international experiences about the study. The researcher mentioned the role of technology such as smart devices, electronic wallets, hardware wallets, and digital Internet wallets. The researcher reviewed some international experiences, such as the Swedish and Kenyan-Moroccan experiences. The researcher concluded with the success factors of financial inclusion. The researcher recommends the need to strengthen the role of e-government.

**6) Manoranjan Bhuyan and others, November 20, 2018)** Product Awareness of Account Holders under Pradhan Mantri Jan Dhan Yojana (PMJDY). The researcher's goal in this study is to ascertain the level of product awareness for account holders who have been entered into the official financial system through (PMJDY). Also, to know the gender impact on the understanding of account holders. This study should provide a future view for researchers, analysts, and policymakers. Bhuyan used the survey method by collecting data from a sample covered by the researcher's field survey. He used the questionnaire tool to collect primary data. The researcher talked about the relationship between the numbers of bank account users. Also indicates a good relationship curve with the high level of awareness of digital payment platforms. He says that the use of ATMs more will introduce new customers to the various financial services provided by banks.

**7) Bharathi Karanth, January 14, 2016:** Financial Planning and Control Practices of Selected Non-Governmental Organizations: An Empirical Appraisal. This study was conducted in the context of development NGOs in India operating in two districts of Karnataka. The represents the geographical boundaries, while the temporal boundaries in 2014-2015, from December to February. The research aims to identify the financial and accounting practices applied in the non-governmental organizations' understudy and then analyses the perceptions of treasurers in these organizations. The study falls under the qualitative exploratory research method, an experimental research covering a larger area. In this study, the researcher relied on primary and secondary sources. The primary sources are the sample survey process, telephone interviews, and e-mail questionnaires. As for the secondary sources, they are included in the reports and statements issued by non-governmental organizations, represented in the annual reports published on websites - as mentioned by the researcher -. At the end of the research, the researcher showed that some organizations under study have diverse financial priorities and practices.

**8) Gajendra J. Naidu, June 4, 2016:** Does Microfinance Training Enhance the Financial Literacy Among Members of Self Help Groups? This study falls within the descriptive and

analytical research methods. It is an empirical study because the researcher has done the necessary exercises to make the change and study the scale of change before and after. The researcher relied on primary and secondary data. As for the preliminary data, the age frame was determined for it between 18-50 years. Several questions were presented to the research sample. Geographical boundaries: Ramangar and Bangalore Time limits: March 2015. The researcher reached the rejection of the null hypothesis that assumes. There is no difference in the levels of financial knowledge between those who underwent training and the alternative view. Microfinance training should enable the trainees to conduct their business transactions efficiently.

### **Objectives of the Study**

- 1) Assessing the extent of the societal need for the dissemination of electronic payment services.
- 2) Collecting and analyzing statistical data related to electronic payment systems in Yemen.
- 3) Demonstrating the utmost importance of seeking to achieve financial inclusion strategies, and drawing the attention of official authorities to the importance of the spread of electronic services.

### **RESEARCH METHODOLOGY**

The research is based on the analytical descriptive approach, through the published data and information related to the research variables, to develop a specific framework for the problem, and the description of the problem scientifically to reach the desired results.

Using secondary data, which was published by CBY -Central Bank of Yemen- and Institute of Banking Studies -Yemen-

### **Background of Banking Law and System in Yemen**

The banking system in Yemen revolves around the unified central bank system. Under this system fall the different banks. In Yemen, these include 4 Islamic banks, 4 Government banks, 8 conventional banks, and 2 microfinance banks. The total number of banks working in Yemen at the end of 2020 was 18 banks with 357 branches and 4655732 accounts. For over two decades, the Central Bank of Yemen has undertaken many measures to develop and reform the banking sector and has sought to issue a set of laws that led to radical changes in the banking business in Yemen. Among these laws:

- 1) Islamic Banking Law (1995)
- 2) The Commercial Banks Law (1998) which gave the Central Bank of Yemen broad authority to issue and withdraw licenses for banks and to supervise and control the banking sector.
- 3) The Central Bank of Yemen Law (2000) which gave the Central Bank of Yemen complete autonomy to carry out its work and achieve its goals.
- 4) The Law of Small Industries and Enterprises Finance Fund (2002).
- 5) Anti-Money Laundering Law (2003)
- 6) Electronic Banking Services Law (2006) (Al-Afandi, 2017)

These laws came to explain what is related to payment systems and electronic financial and banking operations. Electronic operations are defined as financial and banking operations

executed or contracted through electronic means. The laws also aim to develop electronic payment systems and facilitate the use of electronic means in payment procedures. They give the bank the authority to set banking systems that adopt electronic technology to develop and modernize payment systems and exchange information. Besides, the laws set conditions for the inter-clearing systems to meet the technical developments in banking activities. (AMF, 2013)

At the end of 2014, the Central Bank issued the annual circular regarding the regulations for electronic money services via mobile phone to regulate the issuance and management of electronic money. Then, in 2020, a law was passed allowing various financial institutions to provide electronic money services to contribute to the dissemination and development of electronic payment systems in Yemen. (Al-Samawi, 2019), (Jarmozy, 2021)).

The Central Bank of Yemen has signed with the International Development Agency a program for developing the infrastructure of the banking sector, which includes the basic systems (Core Banking). These systems are concerned with banking supervision, treasury operations, and importing data from different banks to obtain analytical information. The digital payments system infrastructure project in a system (payment system) that includes the function of the actual gross settlement (RTGS) and the automated clearing system (ACH) to process payments between banks and between banks and other institutions, such as salaries and invoices. (Al-Samawi, 2019)

### **The Role of Digital Payment**

It's important to talk first about the role of digital payment and it works in Yemen. Electronic payment platforms consist of several parties that share responsibility and contribute to the success of the process. The most important responsibilities are:

**1- Issuance of electronic money:** It is the responsibility of the Central Bank, the only bank in the country that issues money and monopolizes the issuing authority. Accordingly, electronic wallets must be under the authority and control of central banks.

**2- Operations Department:** It is the entity that the Central Bank entrusts with the responsibility of managing the files of digital systems for electronic wallets operating within the state. It verifies that the information, balances, and sending and receiving accounts are correct, deposits the amount in the receiver's balance, and manages withdrawals.

**3- The customer:** customers are the human element that benefits from the infrastructure of digital wallets, as they are the ones who make digital orders, which digital systems and then central computers convert into a form of accounting books represented by creditor and debtor liabilities. What is important to know about the customer is identity, i.e., citizens, expatriates, or tourists who want to benefit from digital services through international transfers, payments, and trade. The researcher expects that the systems in future would promote digital wallets to cross-regional borders to neighboring countries to provide shared digital wallet services.

**4- Infrastructure:** It is the basis for all previous operations - telecommunications services, internet services, banking branch services, etc. (Al-Bawab, 2019).

These tools are concentrated in the cities. Hence, villages are financially excluded due to the lack of access to financial services, although digital payments aim to facilitate equal access to all members of society. Al-Samawi states that the percentage of women is only 13% of the total



users of digital payments. It is a low percentage, which means more efforts are needed in financial education. (Al-Samawi, 2019)

#### **Available Electronic Payment Applications:**

The government has allowed currency exchange companies digital apps in the past months. The ease of opening these wallets is an advantage. Thus they are very popular among people. However, there is a lack of data on them. However, their disadvantage is that they neither commit to submitting financial reports nor clearly disclose the operations done through them. Here the writers review the portfolios that belong to the banks since there is sufficient information on them.

1) **Mahfathati** - It is an electronic wallet from Tadhman on International Bank, which provides the service of making government payments had provided the service of money transfers between different regions, but, due to the collapse of the central banking system, the service stopped. The bank obtained a wallet license in 2017, and the number of customers at the end of 2019 reached (17,649) and the number of points (116) points of sale. (Al-Tadhamn, 2020)

2) **Pyees**- It is an electronic application that provides buying, selling, and payment services viamobile phones, and it is an application linked to Al-Amal Bank for Microfinance. It has a number of 1547 points (Al Amal, 2020)

3) **Mobile Money** - is an application provided by the Agricultural Cooperative Credit Bank (CAC Bank). It provides the service of paying local applications. The bank obtained the license to launch it in 2018, and the number of customers until the end of 2019 reached (22462) and the number of points (2222). (cacbank, 2020) (Al-Samawi, 2019)

4) **M floos** - the electronic wallet service provided by Al-Kuraimi Bank, and it is used for government services fees payment. The bank obtained a wallet license in 2015, the number of active accounts at the end of 2019 was 646211, the total balance 1,019,884,194.04, and the number of points of sale reached 7620 points. (kuraimibank, 2021) (Al-Samawi, 2019)

5) **Floosqk**- is a prepaid application for the Bank of Yemen and Kuwait, used in limited areas in the country. The application was approved at the beginning of 2018; the total number of customers reached 18,608 and the number of points of sale (5071). (yk-bank, 2021) (Abdulghani Al Samawi, 2020) (Ramada, 2020)

#### **Characteristics:**

- 1) The ability to pay without needs for internet service, through SMS messages.
- 2) Facilitating the payment of water, electricity, and mobile bills through applications directly.
- 3) The application does not need to open a bank account, but only a wallet by personal card -ID-

#### **Problems and defects**

- 1) Banks could not find solutions to the problem of currency differences between Yemeni regions, and therefore the feature of sending and receiving local transfers through applications was disabled.
- 2) The need for the Internet, especially when you want to know the balance and perform some operations on the wallet. You can't use USSD.

- 3) The difficulty with internet service in Yemen, one company that monopolizes the internet service, with an increase in its value, and also cutting off the service and poor quality. That interrupted of service from Yemen completely, in early 2020, still periods between days; the Internet is cut off for a day or two due to frequent failures.
- 4) The commissions and percentages deduct fees, and this violates the instructions of the Central Bank of Yemen for Law No. 11 of 2014, which requires that electronic money be equal to paper money paid.

#### **DATA ANALYSIS**

Comparing the number of points of sale, with the population. This will give us an idea, of why digital services are not so popular.

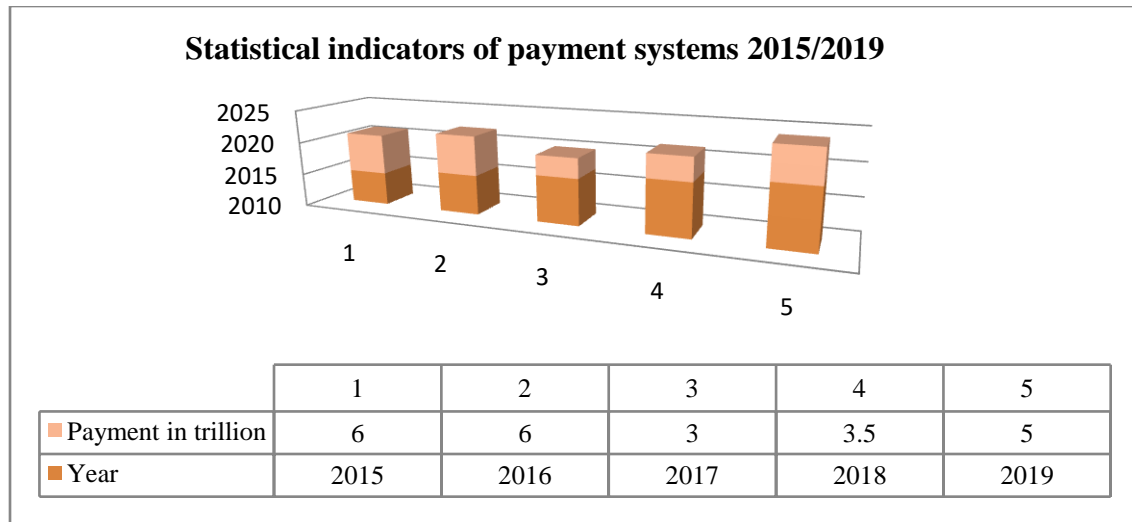
<b>YEAR</b>	<b>POPULATION</b>	<b>POINTS</b>
<b>2014</b>	25823488	1500
<b>2015</b>	26497881	1377
<b>2016</b>	27168210	200
<b>2017</b>	27834811	400
<b>2018</b>	28498683	786
<b>2019</b>	29161922	817

**Table no 1: Total number of points of sale compared to years, sources: electronic payment services in Yemen**

In the year 2014, the ratio of the total points of sale to the total population of Yemen was 2.18%. Increase with 2015: 12.75%. And because of war, it decreases by 2016: 2.75%. 2017: 1.48%. 2018: 2.30%. 2019: 2.80%

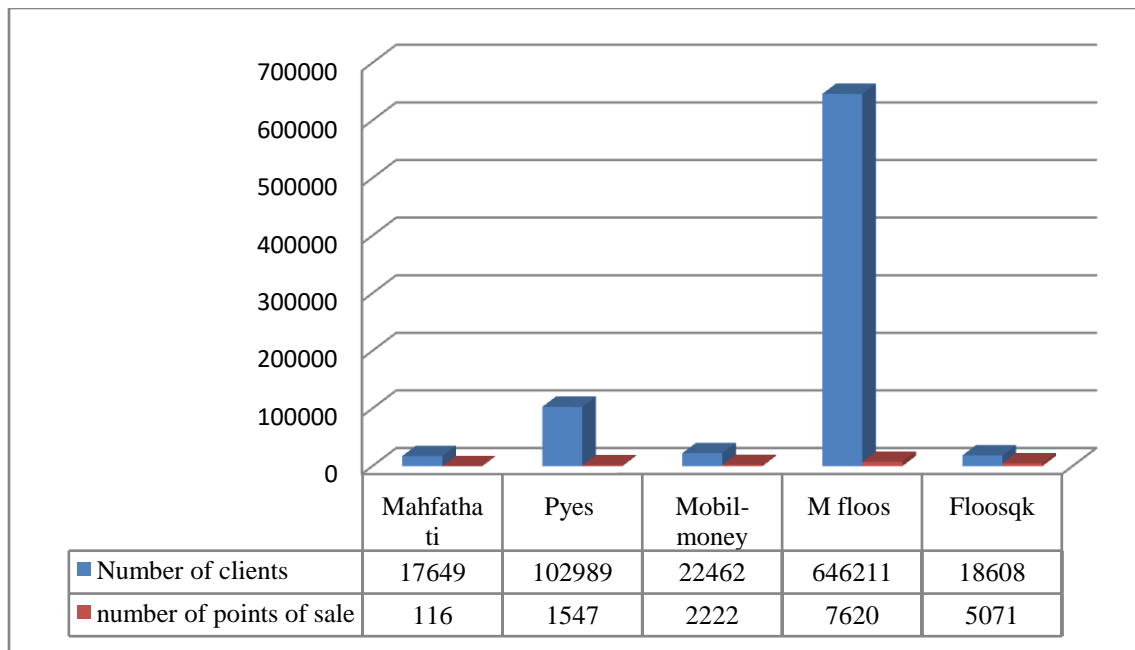
Through this data, we can say: it becomes clear, political change affected the pattern of banking work in Yemen.

Yemeni banks continue to admit that 2015 was the most competitive year, while the political conditions and transferring power helped bring about a revolution in banking progress. (database, (2014-2019))



**Figure 1** Statistical indicators of payment systems 2015/2019. (Al-Samawi, 2019)

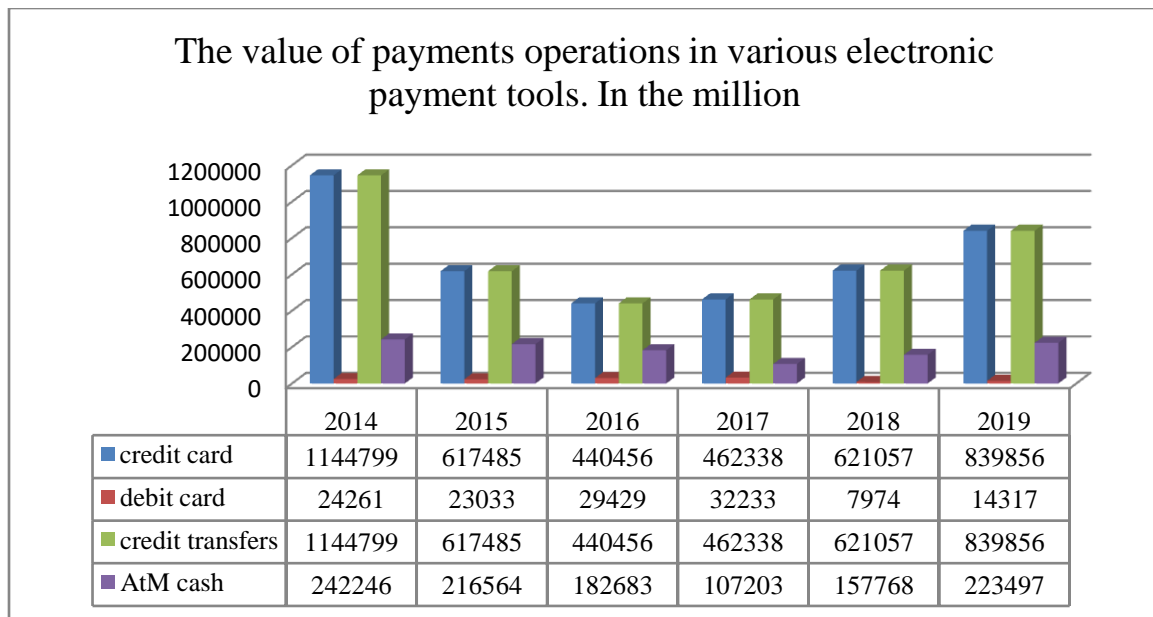
The indicator of payments was disturbed. It shows the decrease, in 2016/2017, as they stabilized in the years 2015/2016 at the level of six trillion. Then it fell in the year 2017 to the level of 3 trillion. After that gradually improved and finally reached 5 trillion in 2019.



**Figure 1: Comparing the digital clients to point sales. (Jarmozy, 2021)**

In this comparison, the (M floos) shows with the largest number of customers, the largest number of sales points. The second wallet -customers- is (Pyes). But the (Mobil-money) wallet has points of sale more than (Pyes). That means there are other factors influencing the demand for some wallets, and the selling points are not the one-factor influencing.





**Figure 3: Compare the values of payments operations in various electronic payment tools. In the million. Source( Abdulghani Al Samawi, 2020)**

This comparison does not differ much from a comparison in Figure (1), where it shows a decrease in various transactions with the banking sector in the years (2014/2016), but the banking sector improved in the period (2017/2019).

## CONCLUSION

The study showed an inadequacy between the volume of electronic services delivered by banks and the number of users. There is no close connection between the proliferation of outlets and the increase in the number of users. This brings to mind other factors, the most important of which is probably the problems of mobile communication on the Internet, and the data support this analysis. The results show support for research hypotheses that society needs electronic payments. The findings are consistent with previous studies. These results require a concerted effort by the government and the dissemination of financial education to individuals, which contributes to the dissemination of financial literacy. In the recent past, financial services have improved significantly, but the data show they are still below the required level. With a tendency to avoid the problems and faults mentioned in the search.

Recommend the future study of the relation between the quality of electronic services and their contribution to the reduction of inflation by affecting the volume of paper money printed.

## FINDINGS:

- 1) The strong and recurring need of society for electronic payment services.
- 2) The statistical data on electronic payment systems in Yemen give a picture of the poor quality of electronic services and the level of awareness of electronic financial services.
- 3) A weak percentage of the population accepts electronic services, representing only 3% of the total population, as a maximum.

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